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REMARKS

This is responsive to an Office Action mailed on August 18, 2005. In the Office Action, the Examiner rejected claims 1, 3, 4, 8-10, 13, 15, 34, 35, and 38-40, 45 and 46, allowed claims 28, 29, 33 and 41-44, and objected to claims 14, 36 and 37. The present application currently includes claims 1, 3, 4, 8-10, 13-15, 28, 29 and 33-46.

In the Office Action, the Examiner rejected independent claims 1, 45 and 46 as being anticipated by U.S. Patent No. 5,308,641 (hereinafter the Cahalan patent). In rejecting independent claims 1, 45 and 46, the Examiner alleged as follows:

Claims 1, 3, 4, 8, 9 15, and 45-46 are rejected under 35 U.S.C. § 102(b) as being anticipated by Cahalan et al (US Patent 5,308,641) where the substrate as claimed is the polyalkylimine-coated tissue or other base material of Cahalan, and the growth factors are coated via glutaraldehyde (a difunctional aldehyde crosslinking agent) to it; see especially column 4, lines 20-43 and column 6, lines 8-28 and the abstract, column 4, lines 20-43 and column 6, lines 8-28. Cahalan discloses that one purpose of the surface treatment is to "promote the attachment and growth of a normal cell layer"; see column 1, lines 33-43. For this reason, it stimulates the "association of viable cells with the substrate as claimed.

(Office Action mailed on August 18, 2005, page 3).

Applicants respectfully disagree with the Examiner that the Cahalan patent anticipates independent claims 1, 45 and 46. Claims 1, 45 and 46 each include crosslinking agents that comprise at least two aldehyde functional groups that form covalent bonds to link **the crosslinking agent directly with the polypeptide growth factor and the substrate**. The Cahalan patent does not disclose crosslinking agents that comprise at least two aldehyde functional groups that form covalent bonds to link the crosslinking agent directly with the polypeptide growth factor and the substrate.

Rather, the Cahalan patent discloses a lightly crosslinked spacer (polyalkylimine that is attached to a solid surface) for the purpose of improving biocompatibility. (Col. 4, lines 14-19). The polyalkylimine is first applied to the solid surface and then is treated

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with the crosslinking agent. (Col. 6, lines 29-31). The polyalkylimine is reacted with a crosslinking agent such that the reaction is completed in a few minutes. (Col. 5, lines 9-10) The crosslinking agent is used to lightly crosslink the polyalkylimine for the purpose of providing a polyalkylimine surface that allows a cellular adhesive molecule or other biomolecules to bond to the spacer. (Col. 4, line 62 – Col. 5, line 3; Col. 6, lines 8-10).

The entire disclosure of the Cahalan patent relates to a spacer that improves biocompatibility of a solid surface of a substrate. There is no disclosure in the Cahalan patent of a crosslinking agent that comprises at least two aldehyde functional groups that form covalent bonds to link the crosslinking agent directly with the growth factor and the substrate as claimed. Polyalkylimine is neither the substrate nor the polypeptide growth factor. Therefore, the Cahalan patent does not anticipate claims 1, 45 and 46.

Applicants respectfully seek clarification as to what the Examiner is considering to be the substrate in the Cahalan patent to allege that claims 1, 45 and 46 are anticipated. Applicants assert that the substrate in the Cahalan patent is disclosed as being a metal, a polymer, minerals or ceramics, human or animal tissue, organic materials such as wood, cellulose and compressed carbon; and other natural and synthetic materials such as glass, rubber, wood and the like. (See Col. 4, lines 24-36). The purpose of the substrate is to provide a solid surface for attaching a spacer that improves the biocompatibility of the medical device to be implanted (Col. 4, lines 14-22). Applicants assert that the spacer of the Cahalan patent is not the substrate and cannot be considered to be the substrate as claimed in claims 1, 45 and 46.

If the Examiner is asserting that claims 1, 45 and 46 are anticipated because the Examiner is construing the substrate element in claims 1, 45 and 46 to include the spacer attached to the substrate as disclosed in the Cahalan patent, Applicants assert that the Examiner is making an impermissibly broad interpretation of the claim element. The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. MPEP § 2111; *In re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999). The Cahalan patent

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clearly distinguishes the substrate (a solid surface) from the spacer (Col. 2, lines 58-68; Col. 4, lines 62-66). Similarly, the present application teaches examples of substrates at p.7, line 15 – p.10, line 18. Neither the Cahalan patent nor the present application teach a spacer as being a substrate. Therefore, Applicants believe that one skilled in the art would not consider the spacer to be a substrate as defined in independent claims 1, 45 and 46.

For the foregoing reasons, the Cahalan patent does not disclose each and every element of claims 1, 45 and 46. Specifically, the Cahalan patent does not disclose a crosslinking agent that comprises at least two aldehyde functional groups that form covalent bonds to link the crosslinking agent directly with the growth factor and the substrate, which is an element of claims 1, 45 and 46. Reconsideration and allowance of claim 1, 45 and 46 are respectfully requested.

Since claim 1 is in allowable form, claims 3, 4, 8-10, and 13-15 which depend from independent claim 1 are also in allowable form. Reconsideration and allowance of claims 3, 4, 8-10, and 13-15 are respectfully requested.

Applicants respectfully request that the obviousness rejections of dependent claims 10 and 13 be withdrawn. Cahalan does not teach the elements of claim 1, as discussed above, and Goldstein and Bayne do not supply the deficiency of Cahalan.

In response to the Examiner's provisional double patenting rejection, Applicants submit that they will consider filing a terminal disclaimer in the event that both the present application and copending application 09/014,087 issue into patents.

Applicants believe that the present application is in condition for allowance. Applicants respectfully request that claims 1, 3, 4, 8-10, 13-15, 28, 29 and 33-46 be reconsidered and allowed.

If a telephone conference would be helpful in resolving any issues concerning

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this communication, please contact Applicant's attorney of record, Hallie A. Finucane, at (612) 334-3222.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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